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CAMKK2 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP7117b

Specification

CAMKK2 Antibody (C-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	Q96RR4
Other Accession	O88831, Q8C078
Reactivity	**Human**
Predicted	**Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**483-512**

CAMKK2 Antibody (C-term) - Additional Information

Gene ID 10645

Other Names
Calcium/calmodulin-dependent protein kinase kinase 2, CaM-KK 2, CaM-kinase kinase 2, CaMKK 2, Calcium/calmodulin-dependent protein kinase kinase beta, CaM-KK beta, CaM-kinase kinase beta, CaMKK beta, CAMKK2, CAMKKB, KIAA0787

Target/Specificity
This CAMKK2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 483-512 amino acids from the C-terminal region of human CAMKK2.

Dilution
WB~~1:1000
IHC-P~~1:50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
CAMKK2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

CAMKK2 Antibody (C-term) - Protein Information

Name CAMKK2

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Synonyms CAMKKB, KIAA0787

Function Calcium/calmodulin-dependent protein kinase belonging to a proposed calcium-triggered signaling cascade involved in a number of cellular processes. Isoform 1, isoform 2 and isoform 3 phosphorylate CAMK1 and CAMK4. Isoform 3 phosphorylates CAMK1D. Isoform 4, isoform 5 and isoform 6 lacking part of the calmodulin-binding domain are inactive. Efficiently phosphorylates 5'-AMP-activated protein kinase (AMPK) trimer, including that consisting of PRKAA1, PRKAB1 and PRKAG1. This phosphorylation is stimulated in response to Ca(2+) signals (By similarity). Seems to be involved in hippocampal activation of CREB1 (By similarity). May play a role in neurite growth. Isoform 3 may promote neurite elongation, while isoform 1 may promoter neurite branching.

Cellular Location
Nucleus. Cytoplasm. Cell projection, neuron projection. Note=Predominantly nuclear in unstimulated cells, relocalizes into cytoplasm and neurites after forskolin induction.

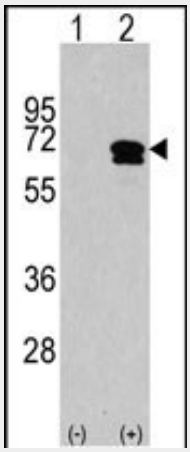
Tissue Location
Ubiquitously expressed with higher levels in the brain. Intermediate levels are detected in spleen, prostate, thyroid and leukocytes. The lowest level is in lung

CAMKK2 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CAMKK2 Antibody (C-term) - Images



Western blot analysis of CAMKK2 (arrow) using rabbit polyclonal CAMKK2 Antibody (C-term)(Cat.#AP7117b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the CAMKK2 gene (Lane 2) (Origene Technologies).

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Formalin-fixed and paraffin-embedded human brain tissue reacted with CAMKK2 antibody (C-term)(Cat.#AP711b), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

CAMKK2 Antibody (C-term) - Background

CAMKK2 belongs to the Serine/Threonine protein kinase family, and to the Ca(2+)/calmodulin-dependent protein kinase subfamily. This protein plays a role in the calcium/calmodulin-dependent (CaM) kinase cascade by phosphorylating the downstream kinases CaMK1 and CaMK4. Isoform 1, isoform 2 and isoform 3 phosphorylate CAMK1 and CAMK4. Isoform 3 phosphorylates CAMK1D. Isoform 4, isoform 5 and isoform 6 lacking part of the calmodulin-binding domain are inactive. CAMKK2 appears to be involved in hippocampal activation of CREB1.

CAMKK2 Antibody (C-term) - References

Hsu, L.S., et al., J. Biol. Chem. 276(33):31113-31123 (2001).
Hsu, L.S., et al., J. Biomed. Sci. 5(2):141-149 (1998).
Anderson, K.A., et al., J. Biol. Chem. 273(48):31880-31889 (1998).
Ishikawa, Y., et al., FEBS Lett. 550 (1-3), 57-63 (2000).

CAMKK2 Antibody (C-term) - Citations

- Ca2+/Calmodulin-Dependent Protein Kinase Kinases (CaMKKs) Effects on AMP-Activated Protein Kinase (AMPK) Regulation of Chicken Sperm Functions.
- Cyclic AMP Mimics the Anti-ageing Effects of Calorie Restriction by Up-Regulating Sirtuin.
- Differential gene expression in the bovine corpus luteum during transition from early phase to midphase and its potential role in acquisition of luteolytic sensitivity to prostaglandin F2 alpha.